

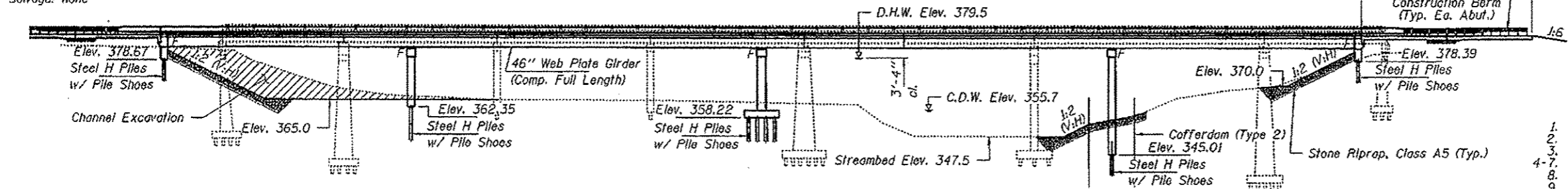
BENCHMARK: BM#97 - "□" cut in the SE corner of SN 039-0009, 54.8' Rt., Sta. 2599+53.96, Elev. 387.079

BM#97 USE 387.399  
(387.079 NADVD88 ⇒ 387.399 NGVD29)

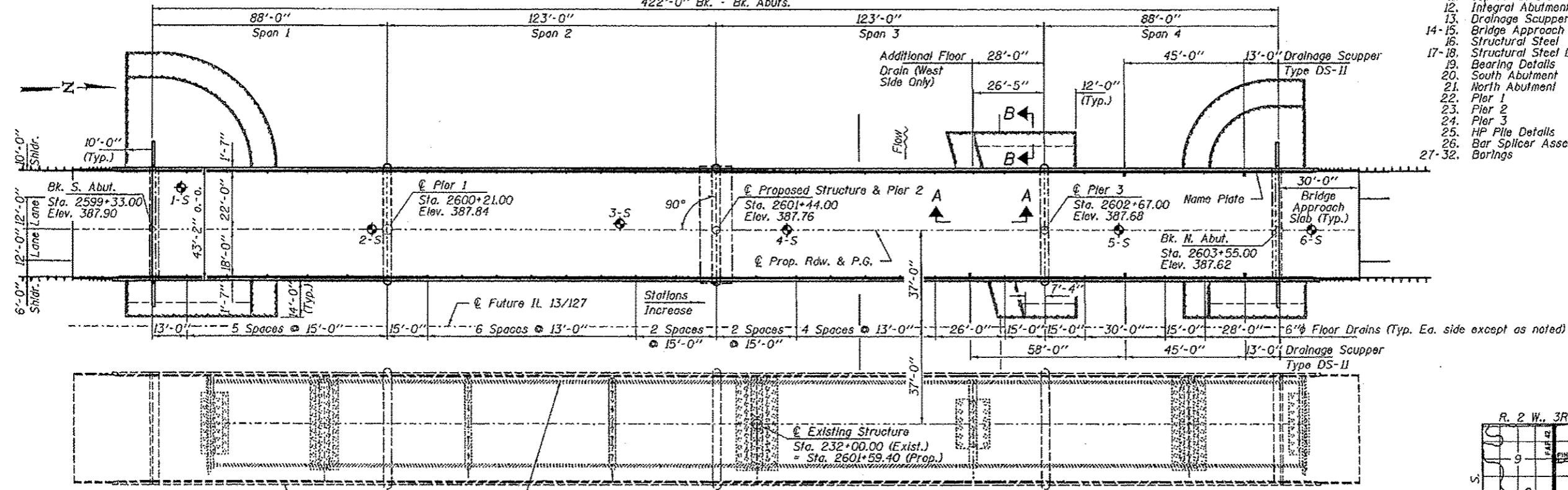
EXISTING STRUCTURE: SN 039-0009 was built in 1925 as SBI Route 13, Section 13C. In 1982 the bridge was reconstructed with a new 7 span PPC deck beam superstructure and 3 new piers. It is 410'-0" bk.-bk. abutts. and 33'-0" o.-o. The existing structure is to be removed and replaced by the new bridge built on parallel alignment. Two way traffic to be maintained on the existing structure until the new bridge is completed.

Salvage: None

Traffic Barrier Terminal, Type 6  
Std. 631031 (Typ.)



ELEVATION



PLAN

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
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SEISMIC DATA

Seismic Performance Zone (SPZ) = 3  
Design Spectral Acceleration of 1.0 sec. (S<sub>1</sub>) = 0.339 g  
Design Spectral Acceleration at 0.2 sec. (S<sub>0.2</sub>) = 0.794 g  
Soil Site Class = D

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinf.)  
f<sub>y</sub> = 50,000 psi (Structural Steel) (A270 GR. 50W)

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
	378.3	352.0	352.0	343.5	378.0

WATERWAY INFORMATION

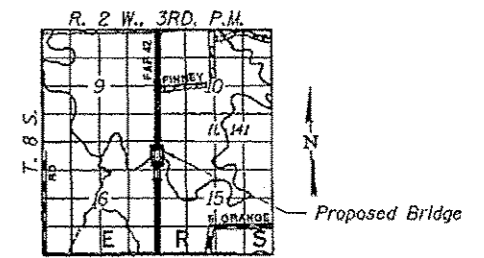
Drainage Area = 545 Sq. Mi. Proposed Low Grade Elev. 387.11 @ Sta. 2612+00

Flood	Freq. Yr.	Opening Sq. Ft.		Head - Ft.		Headwater El.			
		0 C.F.S.	Exist. Prop.	Natural H.W.E.	Exist. Prop.	Exist. Prop.	Exist. Prop.		
Design	10	22950	4862	5212	376.7	0.6	0.5	377.3	377.2
Base	50	31424	5788	6201	379.5	0.7	0.6	380.2	380.1
Max. Calc.	100	35722	6264	6708	380.9	0.9	0.7	381.8	381.6
	500	46000	7205	7711	383.6	1.1	0.9	384.7	384.5

Note: See sheet 2 of 32 for Section A-A and Section B-B.

APPROVED  
For Structural Adequacy Only

*De Carl Ruzay*  
Engineer of Bridges & Structures



LOCATION SKETCH

GENERAL PLAN & ELEVATION  
IL ROUTE 13 / 127  
OVER BEAUCOUP CREEK  
FAP ROUTE 42 - SECTION 13B-1  
JACKSON COUNTY  
STATION 2601+44.00  
STRUCTURE NO. 039-0077



*Michael D. Cava*  
ILLINOIS STRUCTURAL NO. 081-5984  
Expires 11-30-2014  
2-18-2019

FILE NAME: 0390077-78215.dgn	USER NAME: *	DESIGNED - S.M.S.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO. 039-0077 SHEET NO. 1 OF 32 SHEETS	FAP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
3485 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62708 217.344.3200 www.jbrengineering.com	PLOT SCALE *	CHECKED - C.C.S.	REVISED -			42	13B-1	JACKSON	112	35	
16200993 ILLINOIS PROFESSIONAL DESIGN FIRM AN IPE FIRM CORPORATION	PLOT DATE: 1/14/2013	DRAWN - O.A.B.	REVISED -			IL 13/127 OVER BEAUCOUP CR., CONTRACT NO. 78215					
		CHECKED - M.D.C.	REVISED -			[ILLINOIS] FED. AID PROJECT					